NO. 21.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

Sept. 2 to Oct. 1, 1909.

NEW PLANT IMMIGRANTS.

BERBERIS SANGUINEA. 25942. From Nancy, France. Purchased from Mesers. V. Lemoine & Sons. Received September 14. "This is a little known species from North China and appears to be closely allied to B. nepalensis. The blooms are said to be deeper orange and than any other species. These plants are imported for hybridizing purposes. (W. Van Fleet.)

CALAMUS SP. 25858. From Batanes Island. 25859. From Palawan Island. Presented by Mr. Wm. S. Lyon, Manila, P. I. Received August 16. "All the good rattans I know are strictly equatorial and not to be thought of in any of our occidental possessions other than the Canal Zone. As I remember it the rainfall on the Isthmus is probably about 2400-2500 mm. (94-98 inches), if it is less than 2000 mm. (about 79 in.), I think rattans would not do much, altho at Perak the precipitation is less and they raise some good long-jointed canes. For environment they want jungle and plenty of it. My remembrance of the Zone is that the hills were unbroken jungle. Calamus must have a thick mass of medium sized vegetation to scramble over. There is a single feature of calamus culture which differentiates it positively from every other sylvan product with which I am familiar. All are fit to survive under conditions where all other species would succumb. No amount of crowding or shading seems to choke off a young rattan. I believe it can be grown more nearly as a purely spontaneous crop than any other economic product known, not excepting common timber trees. There are two very serious drawbacks to a very general adoption of rattan planting for profit. One their shy fruiting habits and consequent scarcity of seed; the other slow development. I can give you no idea of the time required to

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yield a crop. I only know that it is slow - very slow. The renewal crop is rapid. I have seen canes on cut over lands which had been stripped 4 years before. I think in 5 or 6 years at most and on very poor lands a crop can be depended upon. A seedling crop perhaps in 10 years". (Lyon.) For propagation; plants available later.

CITRULLUS VULGARIS. 25934. Seed from Robertson, Cape Colony, South Africa. Presented by Mr. Chas. P. Lounsbury who procured them from Mr. E. A. Visser, Manager of the Experiment Station at Robertson. Received September 4. "Mr. Visser says this plant yielded melons at the rate of 75 tons an acre on the station grounds without any special care and that the melons kept well and are excellent stock food. They weigh about 30 lbs. each and have a firm, sweetish, somewhat tough pulp. The rind is mottled pale and dark green like common watermelons as a rule but is sometimes whitish in this strain. The seeds do not separate readily and no one seems to be trying to save more than they need for themselves, so there is little chance of buying a supply unless it is ordered a year ahead. Mr. Jack, who was Director of the Departmemt here and is now farming, is trying in vain to get seed for a hundred acres which at least indicates that the merits of the crop appeal to him. Mr. Thornton, our Agriculturist, tells me the plant has long grown to the west of Kuruman on the east side of the Kalihari desert. He thinks it was probably cultivated there by natives in by-gone days but now it grows wild. Some years ago he got down seeds and had them planted near Graaf Reinet. Farmers of the district soon appreciated the value of the melon and took to its cultivation as a stock food. It is said, on good authority, to have yielded as high as 150 tons an acre around there, the ground being almost obscured by the fruits. It seems to me that this or other of the South African melons should be more worth cultivating in arid parts of the west than the thornless prickly pears. Of course the melons want water but much of what they get they store away for months. (Lounsbury.)

COLCHICUM SP. 25928. From Alpine heights of Geovje Dagh, Amanus Mts. Presented by Mrs. F. A. Shepard, Aintab, Turkey. Received August 19. "A wild colchicum having large, pink very showy blossoms in Sept. Fruit ripens in May." (Shepard.)

CRINUM ASIATICUM. 25800. Presented by Mr. Jacob E. Conner, American Consul, Saigon, Cochin China. Received July 30. "I consider this one of the most ornamental plants I know for a lawn or a large jardinier". (Conner.)

CUCUMIS MELO. 25464. Purchased from Yolohama Nursery Co., Yokohama, Japan. Seed receivcd May 5. Makuwa-uri. "This is produced much in the village Mikuwa in the province Mino, whence the name is derived. The male and female flowers are separate on the same vine. The fruits ripen in midsummer. They are oval-shaped, about 5 inches long and of a yellow color with longitudinal stripes. They are eaten 1 or 2 days after having been gathered and are very sweet and delicious. There are several varieties of different colors and forms". (Yokohama Nursery Co.)

CUCUMIS MELO. 25929-931. From Columbia, Mo. Presented by Mr. G. C. Broadhead. "Between 1825 and 1835 the Rev. Albert Holladay of Virginia was Prest. missionary to Persia. He brought to America seeds of a cantaloupe. My father raised the melon in Virginia and in 1836 brought seed to St. Charles Co., Mo., where he raised it until his death in 1853. Relatives and friends have since raised it. The melon raised in Virginia and in Missouri for 10 or 20 years was smaller and sweeter than that raised since. It seems the first was not much over 4 inches in diameter and good to the outer rind. The melon now is as much as 6 inches in diameter and at least ½ in. of rind. When ripe it pulls off easily and generally has a red gum at stem when it breaks. A good melon of this kind is better than most others and we call it the 'Persian cantaloupe'". (Broadhead.)

DIPTEROCARPUS DYERI (Dau song nang) 25801. DIPTEROCARPUS PUNCTULATUS. (Dau do) 25802. Seed prerented by

Mr. Jacob E. Conner, American Consul, Saigon, Cochin China. Received July 30. Large trees native of the valley of the Donnai River in the region around Saigon, Cochin China.

GOSSYPIUM HIRSUTUM. 25964. From Nyasaland Protectorate, British Central Africa. Presented by Mr. J. Stewart McCall. Received Sept. 27. "Seeds of Upland cotton which received the first prize at the recent show at Blantyre. I think you will consider it a very high class hirsutum cotton and it is very gratifying as we received 6d to 7d for it in the Manchester market". (McCall.)

HORDEUM SP. 25922. Hulless barley from Leh, Ladakh, Kashmir, India. Presented by Mr. Rassul Galwan. Rec. Aug. 27. "Flour is made from this but the bread is not as good as that made from wheat flour. Most people use it, therefore, as Suttoo which is made as follows: First wash the barley in cold water and after waiting one day put in the sunshine and let dry. Then fry in an iron pot until brown, then take to a mill and have it ground into flour which is eaten with Ladaki tea; or some eat it with water, some mix it with butter, sugar and tea for there is no need to cook it again". (Galwan.)

LIVINGSTONIA WHITFORDII. 25860. Presented by Mr. Wm. S. Lyon, Manila, P. I. Received August 16. A native of the province of Tayabas in the island of Luzon. "This is far more compact, bushy and ornamental than L. rotundifolia". (Lyon.) For propagation; plants available later.

MANGIFERA INDICA, 25938-40. Seeds from Philippine Islands. Procured by Mr. Wm. S. Lyon, Manila. Received Sept. 8. Carabao, 25938; Pico, 25939; Pahutan, 25940. "From my view point the Pahutan is the best, not horticulturally, other than being a vigorous grower, early fruiter and enormously prolific. Its very serious defects, small size, scanty flesh and excessively large seed, are in my opinion fully offset by a smoothness, sweetness, juiciness and flavor unapproached by any other. I have eaten the famous Alphonso mango in Calcutta and do not consider it

ace high with Pahutan. It further has a very thick rind. This, while still further diminishing its scanty flesh, probably adds to its shipping qualites, (Lyon.)

MIMUSOPS KAUKI. 25909. From Lawang, Java. Seeds presented by Mr. M. Buysman. Received August 26. (Adam's apple". A large tree native of India, the Malay Islands and Australia. The fruit resembles Zizyphus jujuba and is edible. The wood is red, fine-grained and easy to work.

MYRICA NAGI. 25908. From Tangsi, China. Procured by Rev. Alex Kennedy at the request of Mr. F. N. Meyer. Received Aug. 21. "These seeds are for stocks; better varieties are to be grafted onto them later. The plants are exceedingly hard to transplant. The trees thrive wherever the loquat does". (Meyer.)

ORYZA SATIVA. 25937. From Tsangsheng, Kwangtung province, near Canton, China. Presented by Mr. Stuart J. Fuller. Received September 9. "Szemiu, which translated means 'Best quality refined'. The Chinese rice merchant states that the exportation of this rice in any quantity or in samples is forbidden by the Chinese Government." (Wilder.)

PANICUM PALMIFOLIUM. 25740. Seed from Pretoria, Transvaal, South Africa. Presented by Prof. J. Burtt Davy. Received July 19. "I do not consider this one of the best grasses but it is a useful sort in shady places in comparatively warm districts and in forest glades." (Davy.) A native of tropical Africa extending to the Cape.

PRUNUS SUBCORDATA. 25933. Seeds from Lassen Co. Cal., west of Honey Lake at an altitude of about 4700 feet, collected by Mr. Karl Kair, presented by Mr. Marsden Manson, San Francisco. Received Sept. 7. "Variety Kellogii. These fruits are used wherever found for drying and preserving by both the Indians and residents of the country."

RHODOMYRTUS TOMENTOSA. 25891. Seed from Ootacamund, India. Presented by Rev. G. N. Thomssen. Received August 20. "The downy myrtle or hill gooseberry is a handsome ever-

green shrub with broad glossy leaves, pink flowers larger than those of a peach and lasting for several weeks, and dark purple berries about the size of a cherry and tasting like a raspberry. The fruits are eaten raw and used for making jam and jelly." (Bailey.)

ROSA SP. 25936. Cuttings of a yellow rose from Ogden, Utah. Presented by Miss Pearle Cramer. Received Sept. 7. "This rose, so far as I have been able to ascertain, is native only to Utah where it grows in great profusion." (Cramer.)

TRITICUM AESTIVUM. 25921. From Leh, Ladakh, Kashmir, India. Presented by Mr. Rassul Galwan. Received August 27. "Before this seed is sown the field is put under water till the ground is wet a half foot deep. After ten to twenty days when the ground is fairly dry, the seed can be sown. Before the seed is sown manure is spread about $\frac{1}{2}$ inch thick over the ground. The first water is given when the wheat is about 2 in. high. After it becomes dry again a second watering is given. Up to the third watering care must be used. After that the wheat is strong and water can be given any time it is dry. The more water given the better the crop." (Galwan.)

LATHYRUS SATIVUS. 25924. "This is sown with the wheat and there is no need to use any manure. The sowing methods are the same as for the wheat. It is sown about the 10th of May and ripens in about three months. The ground needs more moisture than for wheat." (Galwan.)

PISUM ARVENSE. 25925. "This is sown in hot places and does best in sandy soil. It is sown here about the 20th or 25th of April and ripens in about 3 months. The method of sowing is the same as for the wheat except that no manure is put on the field. If manured the plants grow very large but without beans. The stalks are good to feed to animals. The ground should be wetter than for wheat." (Galwan.)

VICIA FABA. 25904-907. Seed of 4 varieties of horse bean from Friesland Province, Holland. Presented by Dr. M. Greshoff, Koloniaal Museum, Haarlem, Holland. Received August 6.

VICIA FABA. 25963. From Magyarovar, Hungaly. Presented by the Plant Culture Experiment Station. Received Sept. 22. "Seeds are planted in the spring and mature in about 100 days. The plants grow from 35-40 cm. high. The beans are ground up and make a very nutritive food for stock. The fodder is of hardly any value." (Gyarfas.)

VIGNA UNGUICULATA. 25965. From Pretoria, Transvaal, South Africa. Presented by Prof. J. Burtt Davy. Received September 10. This lot apparently contains several different varieties.

ZEA MAYS. 25959-962. From Central Soledad, Cienfuegos, Cuba. Presented by Mr. Robert M. Grey, Harvard Botanical Experiment Station. Received September 21. Seeds of the following: notes by Mr. Grey. 25959. Harvard selected flint corn. This is our surest cropper, best keeper and being free from surface starch less subject to attack from weevil and ants." 25960. Selected white flint Cuban corn. This is used as a sweet or table corn, is early and a small cob variety. 25961. Hybrid purple cob corn (Cuban dent x Cuban flint). 25962. Cuban dent corn. These are the varieties commonly cultivated here and are very productive. They have been under selection for 6 years. The husk of all closes tight at the apex, a great prevention and safeguard against insects.

Following is a list of plants grown at the Department greenhouse by Mr. E. M. Byrnes and turned over to the Division of Foreign Seed and Plant Introduction for distribution:

Areca. 25966.
Areca rubra. 25945.
Begonia rex (several varieties) 25948.
Caladium (variegated) 25949.
Cocos flexuosa. 25943

Latania rubra. 25954.
Martinezia sp. 25944.
Thrinax argentea. 25946.
Thrinax elegans. 25947.

NOTES FROM FOREIGN CORRESPONDENTS.

ALGERIA, Biskra. Colombo Pere, Sept. 12. Sends two bags of oasis alfalfa seed.

AUSTRALIA, Brisbane. John Williams, August 16. Is sending the orange, Usher's Favorite, and seeds of strawberries raised in Brisbane.

AUSTRALIA, Sydney. Colonial Sugar Refining Co., August 31. Sends seeds of six varieties of sugar cane with descrip tive notes.

BURMA, Bhamo. W. H. Roberts, August 21. Is sending seed of Wa Bo, or large Bamboo. These are not jungle bamboos but are planted by the villagers. Will try to send seed of jungle bamboos in January or March.

DHINA, Wei Hsien, Shantung. H. W. Luce, Sept. 3. Is trying to collect wild chrysanthemums and large peaches of Shantung to be sent later.

INDIA, Nagpur. J. Mollison, Sept. 8. Is sending seeds of two wild Himalayan species of fruit trees, Pyrus malus (Palu), and Prunus padus (Jamu).

NEW BRUNSWICK, Midlothian. Geo. Forrest, Sept. 9. Sends samples of Lichiangfu paper. One of the samples is made of Edgeworthia Gardneri.

NEW ZEALAND, Wellington. T. W. Kirk, Aug. 28. Sends samples of New Zealand rice grass and oat grass.

PARAGUAY, Capella Horqueta. Thos. R. Gwynn, August 2. Will send seed of the rubber plant Mangaysi - a hardy plant which grows in the poorest soils. It is a first class rubber plant and a very ornamental tree. Fruits ripe in Dec.

PHILIPPINE ISLANDS, Manila. Wm. S. Lyon, August 29. Will try to get seeds of D. Ebenaster. Has some thrifty plants of Nephelium glabrum which he offers to send if wanted. Cannot get fresh seeds of these until May-June, 1910. These make strong, robust growth on the poorest soil.

TRINIDAD, Port of Spain. F. Evans, Sept. 17. Is sending a small box of mangosteen fruit. Will send a larger one soon.

TURKEY, Bagdad. A. E. C. Bird, August 5. Will send next season cuttings of Fahal variety of pomegranate and Eswed variety of grape.

RECENT VISITORS.

LOUISIANA. Mr. E. F. Miles, Grunewald Hotel, New Orleans, La. Mr. Miles is one of the owners of immense salt mines in Louisiana and Mississippi. He has a place at Delisk, Miss., where he is particularly interested in the establishment of game preserves and where he now has deer and other animals and English pheasants; this is taken care of by colored labor. While his facilities for handling important material are not very great, it would be well to send him anything that he can take care of. His interests are very wide and he is capable financially of taking up new things.

MEXICO. Dr. Palmer is going to Tampico, Mexico, and will be there all winter. There is a Chinese settlement there where they are growing all sorts of South China things. We can reach him through Dr. Rose of the National Museum.